Chit 17 –

create database library;

use library;

create table library\_branch(

-> branch\_id int primary key,

-> branch\_name varchar(100),

-> address varchar(100)

-> );

create table publisher(

-> name varchar(100) primary key,

-> address varchar(100),

-> phone int

-> );

create table book(

-> book\_id int primary key,

-> title varchar(100),

-> publisher\_name varchar(100),

-> pub\_year year(4),

-> foreign key(publisher\_name) references publisher(name)

-> );

create table book\_authors(

-> book\_id int,

-> author\_name varchar(100),

-> foreign key(book\_id) references book(book\_id) on delete cascade

-> );

create table book\_copies(

-> book\_id int,

-> branch\_id int,

-> no\_of\_copies int,

-> foreign key(book\_id) references book(book\_id) on delete cascade,

-> foreign key(branch\_id) references library\_branch(branch\_id)

-> );

create table book\_lending(

-> book\_id int,

-> branch\_id int,

-> card\_no int,

-> date\_out date,

-> due\_date date,

-> foreign key(book\_id) references book(book\_id) on delete cascade,

-> foreign key(branch\_id) references library\_branch(branch\_id)

-> );

insert into library\_branch

-> values (201, 'LIB-A', 'Akurdi'),

-> (202, 'LIB-B', 'Nigdi');

insert into publisher

-> values ('X', 'Ravet', 93465),

-> ('Y', 'Pimpri', 79931),

-> ('Z', 'Chinchwad', 79343);

insert into book

-> values(1, 'C', 'X', 2004),

-> (2, 'Java', 'Y', 2006),

-> (3, 'Python', 'Z', 2008);

insert into book\_authors

-> values(1, 'A'),

-> (2, 'B'),

-> (3, 'C');

insert into book\_copies

-> values (1, 201, 500),

-> (1, 202, 1000),

-> (2, 201, 300),

-> (2, 202, 100),

-> (3, 201, 800);

insert into book\_lending

-> values(1, 201, 111, '2022-02-25', '2022-03-25'),

-> (2, 202, 222, '2022-09-13', '2022-10-13');

QUERIES

• Retrieve details of all books in the library – id, title, name of publisher, authors, number of

copies in each branch,etc.

select book.book\_id, title, publisher\_name, author\_name, branch\_name, no\_of\_copies

-> from book

-> join book\_authors on book.book\_id = book\_authors.book\_id

-> join book\_copies on book.book\_id = book\_copies.book\_id

-> join library\_branch on book\_copies.branch\_id = library\_branch.branch\_id;

• Get the particulars of borrowers who have borrowed from Jan 2017 to Jun2017

select title, branch\_name, card\_no, date\_out, due\_date

-> from book\_lending

-> join book on book\_lending.book\_id = book.book\_id

-> join library\_branch on book\_lending.branch\_id = library\_branch.branch\_id

-> where date\_out between '2017-01-01' and '2017-06-30';

• Delete a book name “Databases” from BOOK table.

delete from book where title = 'Databases';

• Print total number of books as yearwise.

select count(\*) as total\_no\_of\_books, pub\_year

-> from book

-> group by pub\_year

-> order by pub\_year;

• Create a view of all books and its number of copies that are currently available in the

Library

create view books as

-> select title, sum(no\_of\_copies) as copies

-> from book

-> join book\_copies on book.book\_id = book\_copies.book\_id

-> group by book.book\_id;

select \* from books;